



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,049	10/10/2001	Kazunobu Miki	50090-443	5044

7590 12/04/2002

McDermott, Will & Emery
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

HOLLINGTON, JERMELE M

ART UNIT	PAPER NUMBER
----------	--------------

2829

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/973,049

Applicant(s)

MIKI, KAZUNOBU

Examiner

Jermele M. Hollington

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35

U.S.C. 119(a)-(d). *Specification*

2. The disclosure is objected to because of the following informalities: on page 2, lines 9-10, the phrase "the probe guard" should be change to --the probe card--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 6-10 are rejected under 35 U.S.C. 102(b) as being anticipated by admitted prior art of Figures 8-19B.

Regarding claims 1 and 10, the admitted prior arts disclose a semiconductor element apparatus [see Fig. 8] comprising a stage (4) on which a semiconductor wafer (5) having semiconductor elements (6) [see Fig. 9] is to be mounted, a probe card (1) having a plurality of probe needles (7) opposing the semiconductor wafer (5) and a probe card holder member (26) [see Fig. 14] for holding the probe card (1) and the semiconductor elements (6) are tested by bringing the plurality of probes needles (7) into contact with the semiconductor elements (6) of the semiconductor wafer (5) [see Fig. 9], wherein the probe card (1) has a probe substrate (12)

Art Unit: 2829

for supporting the plurality of probe needles (7) and a reinforcement member (13) [see Fig. 11] for reinforcing the probe card substrate (12) and the reinforcement member (13) has counter bore (13a) [see Fig. 17] of substantially the same depth and shape in a plurality of mount positions and the probe card substrate (12) is attached to the probe card holder member (26) through the reinforcement member (13a) at the counter bores by screws (17) [see Fig. 15].

Regarding claims 2-3, the admitted prior art disclose screws [see Fig. 15] having the same length and same type are used in the respective mount positions.

Regarding claim 6, the admitted prior arts disclose the reinforcement member (13) is attaching to the probe card hold member (26) by means of a screw (17) [see Fig. 15] at each of mount positions at respective end sections of a plurality of reinforcement arms (13A and 13C) and in each of the reinforcement arms (13A and 13C) a counter bore (13a) narrower than the width of the end section of the reinforcement arms (13A and 13C) with respect to a width wise direction thereof, as well as in the end section of the reinforcement arm (13A and 13C).

Regarding claim 7, the admitted prior arts disclose the reinforcement member (13) has a peripheral section having the plurality of mount positions and a central section formed so as to have a thickness greater than that of the peripheral section.

Regarding claim 8, the admitted prior arts disclose the reinforcement member (13) comprises a peripheral section having a plurality of reinforcement arms (13A-13D) each reinforcement arms (13A-13D) having the mount position and a frame-shaped center section and a reinforcement piece for two interconnecting mutually-opposing sides of the frame-shape center section is provided in the center section.

Regarding claim 9, the admitted prior arts disclose the reinforcement member (13) has a peripheral section having the plurality of mount positions and a center section located at the center of the peripheral section and the reinforcement member (13) and the probe card substrate (12) are fastened to each other in the center section.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art of Figs. 8-19B.

Regarding claim 4, the admitted prior arts disclose all of the claimed invention except a round head screws. However, it would have been obvious to one of ordinary skill in the art to use any different type shape screws for the purpose of attaching together a probe card substrate and reinforcement member as intended. Therefore, it would have been an obvious matter of design choice to have round head screws, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Regarding claim 5, the admitted prior arts disclose all of the claimed invention except screws formed from a magnetic substance. However, it would have been obvious to one of ordinary skill in the art to have screws formed from any material for purpose of attaching

Art Unit: 2829

together a probe card substrate and reinforcement member as intended. Therefore, it would have been an obvious matter of design choice to have screws formed from a magnetic substance, since such a modification would have involved an aesthetic design change ornamentation that has no mechanical function of a component. An aesthetic design change is generally recognized as being within the level of ordinary skill in the art. *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kuji et al (5640101), Hagihara (5825192), Miley (5949244), Sano (6072325), Gleason et al (6307387) disclose semiconductor test apparatus for testing a DUT with probe needles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermele M. Hollington whose telephone number is (703) 305-1653. The examiner can normally be reached on M-F (9:00-4:30 EST) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (703) 308-1233. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Application/Control Number: 09/973,049

Page 6

Art Unit: 2829

Jermele M. Hollington
Examiner
Art Unit 2829

J.M.H.
JMH

November 22, 2002


KAMAND CUNEO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800